FlyBy Math™ Alignment to
Mathematics Grade-Level Standards
Adopted April 2002

Calculations and Estimations

Common Curriculum Goal (CCG): Numbers:
Understand numbers, ways of representing numbers, relationships among numbers, and number systems.

Grade-Level Standards	***FlyBy Math*™ Activities**
M.06.1.A.1(3) Understand rates and ratios as comparisons of two quantities by division.	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

Algebraic Relationships

CCG: Patterns and Functions:
Understand patterns, relations, and functions.

Grade-Level Standards	***FlyBy Math*™ Activities**
M.06.3.A.1(1) Represent, analyze and determine rules for finding patterns involving positive rational numbers with tables, graphs, words, and when possible, symbolic rules.	--Represent distance, speed, and time relationships for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system. --Use tables, bar graphs, line graphs, equations, and a Cartesian coordinate system to draw conclusions.

CCG: Algebraic Relationships:
Represent and analyze mathematical situations and structures using algebraic symbols.

Grade-Level Standards	***FlyBy Math*™ Activities**
M.06.3.B.1(3) Describe and interpret relationships using information from tables and graphs including coordinate graphs (first quadrant).	--Represent distance, speed, and time relationships for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system. --Plot points on a schematic of a jet route, on a vertical line graph, and on a Cartesian coordinate system to describe the motion of two airplanes.
M.06.3.B.1(4) Graph linear equations on a coordinate grid by making a table using whole number coordinates.	--Represent distance, speed, and time relationships for constant speed cases using linear equations and a Cartesian coordinate system.

CCG: Modeling:
Use mathematical models to represent and understand quantitative relationships.

Grade-Level Standards	***FlyBy Math*™ Activities**
M.06.3.C.1(1) Model and solve contextualized problems using various representations such as graphs, tables, and equations.	--Use tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.

M.06.3.C.1(3) Identify and sketch a graph that models a given situation.	--Represent distance, speed, and time relationships for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system.
CCG: Change: Analyze change in various contexts.	
Grade-Level Standards	***FlyBy Math™* Activities**
M.06.3.D.1(1) Investigate how a change in one variable relates to a change in a second variable.	--Interpret the slope of a line in the context of a distance-rate-time problem.

Measurement

CCG: Direct & Indirect Measurement: Apply appropriate techniques, tools, and formulas to determine measurements.	
Grade-Level Standards	***FlyBy Math™* Activities**
M.06.4.B.1(1) Determine measurements of length and perimeter to the nearest eighth inch (for length less than one foot) and nearest inch (for lengths greater than one foot).	--Calculate and measure the position and time of simulated aircraft. Represent that motion using tables, graphs, equations, and experimentation.
M.06.4.B.1(10) Calculate rates (e.g., miles per hour, miles per gallon, people per square mile) to solve problems.	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios. --Calculate and measure the position and time of simulated aircraft. Represent that motion using tables, graphs, equations, and experimentation.

Mathematical Problem Solving

CCG: Conceptual Understanding: Select, apply, and translate among mathematical representations to solve problems.	
Grade-Level Standards	***FlyBy Math™* Activities**
M.06.6.A.1(1) Interpret the concepts of a problem-solving task and translate them into mathematics.	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.
CCG: Processes and Strategies: Apply and adapt a variety of appropriate strategies to solve problems.	
Grade-Level Standards	***FlyBy Math™* Activities**
M.06.6.B.1(1) Choose strategies that can work and then carry out the strategies chosen.	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

CCG: Communication: Communicate mathematical thinking coherently and clearly. Use the language of mathematics to express mathematical ideas precisely.	
Grade-Level Standards	***FlyBy Math™* Activities**
M.06.6.D.1(1) Use pictures, symbols, and/or vocabulary to convey the path to the identified solution.	--Choose among tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.
CCG: Accuracy: Accurately solve problems that arise in mathematics and other contexts.	
Grade-Level Standards	***FlyBy Math™* Activities**
M.06.6.E.1(1) Accurately solve problems using mathematics.	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.